

SECTION 2. MAINTENANCE

2-1. INTRODUCTION

This section provides procedures for the checkout and replacement of the various parts used within the fryer. Before replacing any parts, refer to the Troubleshooting Section. It will aid you in determining the cause of the malfunction.

2-2. MAINTENANCE HINTS

1. You may need to use a multimeter to check the electric components.
2. When the manual refers to the circuit being closed, the multimeter should read zero unless otherwise noted.
3. When the manual refers to the circuit being open, the multimeter will read infinity.

2-3 HIGH TEMPERATURE LIMIT CONTROL (Gas Units)



The high temperature limit control is a safety, manual reset control that senses the temperature of the shortening. If the shortening temperature exceeds 425°F (218°C), this switch will open and shut off heat to the frypot. When the temperature of the shortening drops to a safe operation limit, the control must be manually reset by pressing the red reset button. The red reset button is located under the control panel, in the front of the fryer. This will allow heat to be supplied to the frypot once again.

Before replacing a high temperature limit control, check to see that its circuit is closed.

NOTICE

The shortening temperature must be below 380°F (193°C) to accurately perform this check.

Checkout:

1. Remove electrical power supplied to fryer.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove the control panel.

**2-3 HIGH TEMPERATURE
LIMIT CONTROL**
(Continued)



3. Remove the two nuts securing the high limit bracket to the unit and pull the bracket from the unit.
4. Remove the two screws securing the high limit to the bracket, and remove the high limit from the bracket.
5. Remove the two electrical wires from the high temperature limit control.
6. Manually reset the control, then check for continuity between the two terminals after resetting the control. If the circuit is open, replace the control, then continue with this procedure. (If the circuit is closed, the high limit is not defective. Re-connect the two electrical wires.)

Replacement:



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



1. If the tube is broken or cracked, the control will open, shutting off electrical power to the heat circuit. The control cannot be reset, and it will continuously click when pushed.
2. Drain the shortening from the frypot and discard. A substance in the tube could contaminate the shortening.
3. Remove the control panel.
4. Loosen small inside screw nut on capillary tube.

**2-3 HIGH TEMPERATURE
LIMIT CONTROL**
(Continued)



5. Remove the bracket from the heat tube covering the high limit bulb.
6. Straighten the capillary tube behind the pot wall.
7. Pull the high limit bulb through the retainers on the heat tube.
8. Remove the larger outside nut that threads into the pot wall.
9. Remove the defective high limit from the control panel area.
10. Insert new high limit into bracket and replace wires.
11. Uncoil capillary line, starting at capillary tube, and insert through frypot wall.



To avoid electrical shock or other injury, run the capillary line under and away from all electrical power wires and terminals. The tube must never be in such a position where it could accidentally touch the electrical power terminals.

12. Insert capillary line through brackets on heat tube, and then pull back through pot wall until capillary bulb is secure in brackets.
13. Pull excess capillary line from pot and tighten nut into frypot wall.
14. With excess capillary line pulled out, tighten smaller nut.
15. Replace bracket on heat tube covering the high limit bulb.
16. Replace front panel.
17. Refill frypot with shortening.

2-4. COMPLETE CONTROL PANEL REPLACEMENT

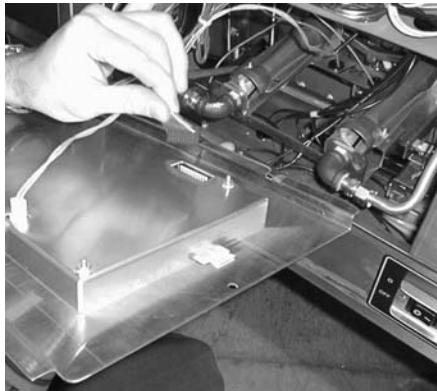


Should the control board become inoperative, follow these instructions for replacing the board.

1. Remove electrical power supplied to the unit.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



2. Remove the four screws securing the control panel and lift out.
3. Unplug the wire connectors going to the control board.
4. Install new control panel in reverse order.



When plugging connectors onto new control panel, be sure the connectors are inserted onto all of the pins, and that the connectors are not forced onto the pins backwards. If not connected properly, damage to the board could result.

2-5. POWER SWITCH



1. Remove electrical power supplied to fryer.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove control panel.
3. Label and remove the wires from the switch. With test instrument, check across the terminals of the switch with the switch in the ON position, then in the OFF position. With the switch in the ON position, the circuit should be closed. With the switch in the OFF position, the circuit should be open. If the switch checks defective, replace by continuing with this procedure.

2-5. POWER SWITCH (Continued)

4. With control panel removed, and the wires off the switch, push in on tabs on the switch to remove from panel.
5. Replace with new switch, and reconnect wires to switch.
6. Replace the control panel.

2-6. TEMPERATURE PROBE REPLACEMENT

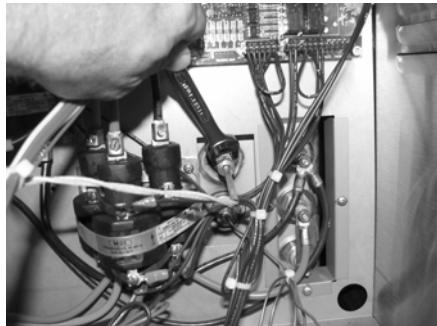
The temperature probe relays the actual shortening temperature to the control board. If it becomes disabled, "E-6B" will show in the display. Also, if the shortening temperature is out of calibration by more than 10°F or C°, the temperature probe should be replaced. An Ohm check can be performed also. See chart on page 2-7.

1. Remove electrical power supplied to the fryer.



To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

Electric



Gas



2. Drain the shortening from the frypot.

3. Remove the control panel.

4. Using a 1/2" wrench, remove the nut on the compression fitting.

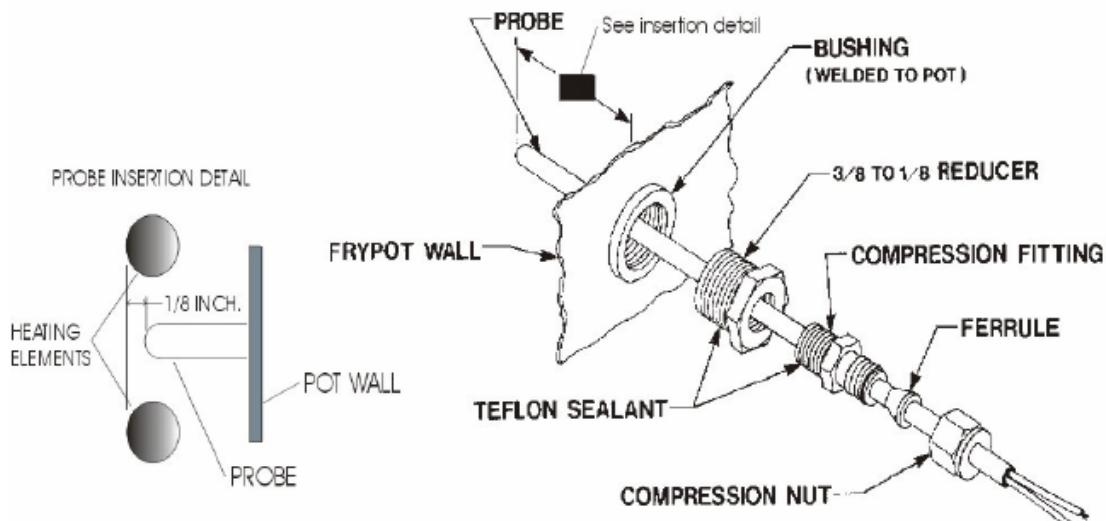
5. Remove the temperature probe from the frypot.

6. Follow the appropriate instructions, on the following page, depending upon the type of fryer, gas or electric.

**2-6. TEMPERATURE PROBE
REPLACEMENT**
(Continued)

ELECTRIC

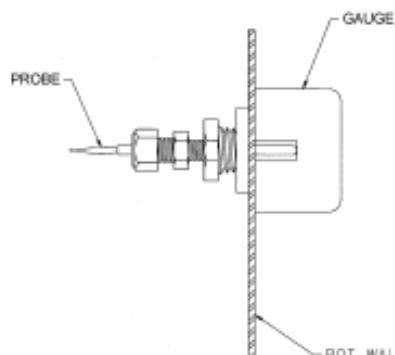
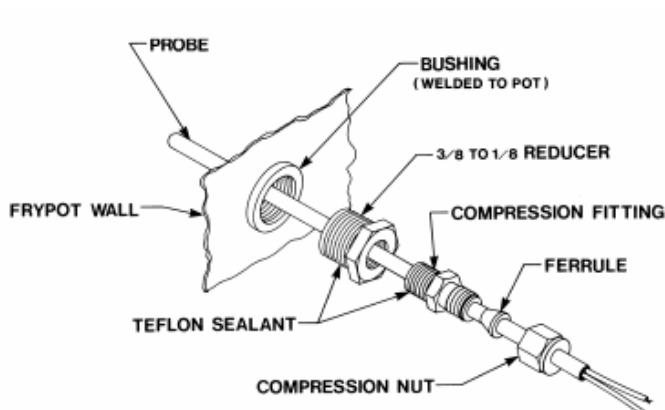
PROBE INSTALLATION INSTRUCTIONS



Insert probe to 1/8 inch from the outer surface of the elements. It must not extend beyond this or the basket will catch and bend it. If not extended far enough into the pot, the temperature readings will be lower than the actual oil temperature.

Do not overtighten the compression nut. Overtightening can cause the ferrule to distort the probe sheath.

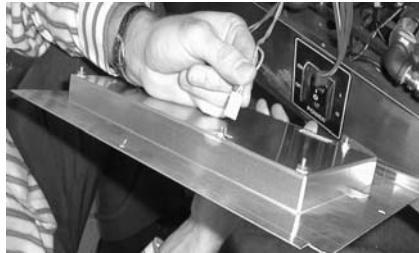
GAS



NOTE:

- 1.) LOCATE TEMPERATURE PROBE THRU POT WALL.
- 2.) PLACE GAUGE AGAINST POT WALL AS SHOWN.
- 3.) PUSH TEMPERATURE PROBE THRU UNTIL IT MAKES CONTACT WITH GAUGE.
- 4.) TIGHTEN TEMPERATURE PROBE IN PLACE.

**2-6. TEMPERATURE PROBE
REPLACEMENT**
(Continued)



7. Tighten the compression nut hand tight and then a half turn with wrench.

CAUTION

Excess force will damage temperature probe.

8. Connect new temperature probe to PC board and replace control panel.
9. Replace shortening.

10. Turn power on and check out fryer.

Temp. F	Temp. C	Resistance Ohms	Temp. F	Temp. C	Resistance Ohms
0	-17.78	930.34	250	121.11	1464.79
10	-12.22	952.14	260	126.67	1485.71
20	-6.67	973.92	270	132.22	1506.58
30	-1.11	995.65	280	137.78	1527.43
32	0.00	1000.00	290	143.33	1548.23
40	4.44	1017.35	300	148.89	1569.00
50	10.00	1039.02	310	154.44	1589.73
60	15.56	1060.65	320	160.00	1610.43
70	21.11	1082.24	325	162.78	1620.77
80	26.67	1103.80	330	165.56	1631.09
90	32.22	1125.32	340	171.11	1651.72
100	37.78	1146.81	350	176.67	1672.31
110	43.33	1168.26	360	182.22	1692.86
120	48.89	1189.67	365	185.00	1703.13
130	54.44	1211.05	370	187.78	1713.38
140	60.00	1232.39	380	193.33	1733.87
150	65.56	1253.70	390	198.89	1754.31
160	71.11	1274.97	400	204.44	1774.72
170	76.67	1296.20	410	210.00	1795.10
180	82.22	1317.40	420	215.56	1815.44
185	85.00	1327.99	430	221.11	1835.74
190	87.78	1338.57	440	226.67	1856.01
200	93.33	1359.69	450	232.22	1876.24
210	98.89	1380.79	460	237.78	1896.44
212	100.00	1385.00	470	243.33	1916.60
220	104.44	1401.84	480	248.89	1936.73
230	110.00	1422.86	490	254.44	1956.81
240	115.56	1443.85	500	260.00	1976.87

2-7. FLAME SENSOR (Gas Units)

The flame sensor recognizes the pilot flame and allows gas to continue to the pilot. The flame sensor must send a minimum of two (2) micro amps to the ignition module. The pilot flame should be split in two by the flame sensor, causing the flame sensor to be bright red in color.

1. Remove electrical power supplied to the unit.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle..

2. To access flame sensor, open the filter doors in the front of the unit. Follow the small gauge yellow wire running to the sensor behind the pilot assembly.
3. Disconnect the flame sense wire from the flame sensor.
4. Using a pair of needle nosed pliers, pull the flame sensor out of the pilot assembly bracket.
5. Insert new flame sensor and reconnect flame sensor wire.
6. Turn power on and check fryer.

2-8. PILOT / IGNITOR ASSEMBLY

The Henny Penny open fryer (gas) has electronic spark ignition that lights a standing pilot. The gap between the spark electrode and the pilot hood should be set at 1/8 of an inch.

1. Remove electrical power supplied to the unit.

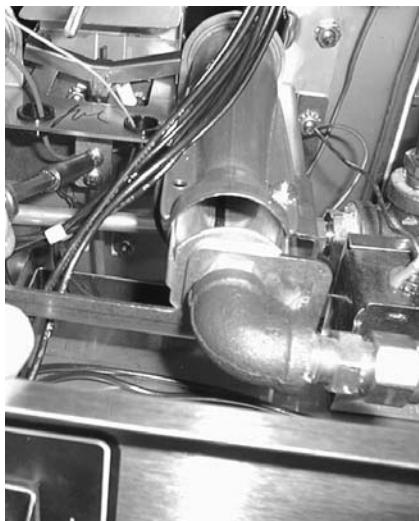
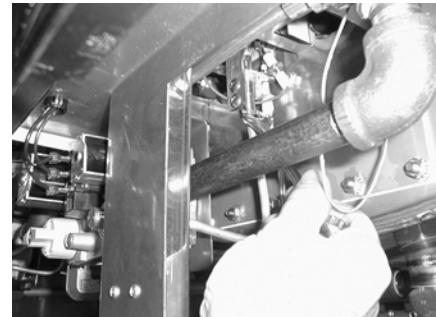


To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



TO AVOID PERSONAL INJURY OR PROPERTY DAMAGE, BEFORE STARTING THIS PROCEDURE, MOVE THE MAIN POWER SWITCH TO THE OFF POSITION. DISCONNECT THE MAIN CIRCUIT BREAKERS AT THE CIRCUIT BREAKER BOX OR UNPLUG SERVICE CORD FROM WALL RECEPTACLE. TURN OFF THE MAIN GAS SUPPLY TO THE FRYER AND DISCONNECT AND CAP THE MAIN SUPPLY LINE TO FRYER, OR POSSIBLE EXPLOSION COULD RESULT.

2. Remove the control panel as discussed in Complete Control Panel Replacement Section.
3. Disconnect the pilot gas line fitting at the pilot assembly with a $\frac{1}{2}$ inch wrench.
4. With a Phillips head screwdriver, remove the two screws securing the pilot assembly to the mounting bracket.
5. Remove the flame sensor wire from the flame sensor.
6. Follow the wire from the spark ignitor back to the module, and remove wire from module.
7. After removing assembly from unit, pull the flame sensor out of the bracket as discussed in section 6-7. Insert flame sensor into new pilot/ignitor assembly.
8. Reinstall the new pilot/ignitor assembly in reverse order. Be extremely careful not to cross thread the pilot gas line fitting.



2-9. IGNITOR MODULE

During normal operation, the ignition modules send 24 volts to the ignitors and gas control valve. If a module does not sense a pilot flame, the module starts the ignition process again. But, if a pilot light goes out for longer than 10 seconds, or it goes out 3 times within 10 seconds, the module keeps the 24 volts from reaching the gas control valve. The burners shut down.

1. Remove electrical power supplied to the unit.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove the control panel as discussed in Complete Control Panel Replacement Section.
3. Label and remove the wires at module.
4. Using a 3/8 inch nut driver, remove the keps nuts securing the module to the shroud.
5. Install new module in reverse order.

2-10. TRANSFORMER

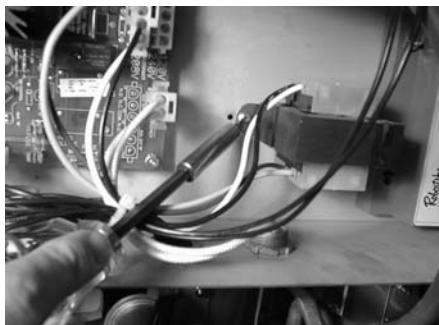
The transformer reduces voltage down to accommodate those components with low voltage.

1. Remove electrical power supplied to the unit.

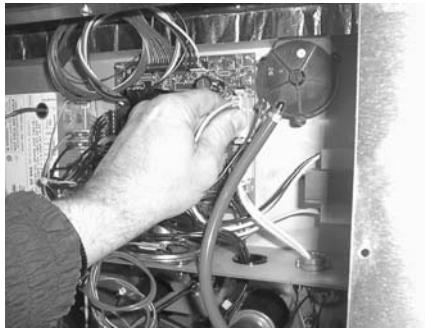


To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove the control panel as discussed in Complete Control Panel Replacement Section.
3. Squeeze on the wire connector at the I/O board assembly to disconnect the wires from the transformer.
4. Using a Phillips head screwdriver, remove the two screws securing the transformer to the shroud.
5. Install the new transformer in reverse order.



2-11. I/O POWER SUPPLY BOARD ASSEMBLY



The input/output power supply board assembly distributes voltage to the various components in the fryer. The board also receives information from components in the fryer.

1. Remove electrical power supplied to the unit.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove the control panel as discussed in Complete Control Panel Replacement Section.
3. Disconnect the wire assemblies from the board.
4. Using a nut driver or wrench, remove the four keps nuts securing the board to the shroud.
5. Install the new I/O board assembly in reverse order.

2-12. VACUUM SWITCH

The vacuum switch senses the airflow from the induction blower. If the airflow is reduced below a set amount, the switch will open and the I/O board will cut power to the gas control valve, which will shut the pilot flame off.

1. Remove electrical power supplied to the unit.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove the control panel as discussed in Complete Control Panel Replacement Section.
3. Remove the air hose from the vacuum switch.
4. Label and remove wires from vacuum switch.

2-12. VACUUM SWITCH **(Continued)**

5. Using a Phillips head screwdriver, remove the screws securing the vacuum switch to the shroud.
6. Install the new vacuum switch in reverse order.

CAUTION

To avoid property damage, do not tamper with, or disassemble this component. It is set and sealed from the factory and is not to be adjusted.

2-13. SPEAKER ASSEMBLY **(Gas Units)**

The speaker assembly emits audible signals to let the operator know when cooking and hold times are finished.

1. Remove electrical power supplied to the unit.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.



2. Remove the control panel as discussed in Complete Control Panel Replacement Section.
3. Using a Phillips head screwdriver, remove the four screws securing the speaker to the shroud.
4. Install new speaker in reverse order. When plugging connector into control board, be sure to align pins into connector correctly.

2-14. DRAIN MICROSWITCH

Upon turning the drain handle, the drain microswitch circuit should open, cutting off the pilot flame. This will prevent the fryer from heating while shortening is being drained from the frypot.

1. Remove electrical power supplied to the unit.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. The following check should be made to determine if the drain microswitch is defective.
 - a. Remove the two screws securing the microswitch to the drain rod valve bracket.
 - b. Remove wires from the switch.
 - c. Check for continuity across the two outside terminals of the drain switch. If the circuit is open, the drain switch is defective. The circuit should only be opened by pressing on the actuator of the drain switch.
3. Replace switch in reverse order.



2-15. FILTER SWITCH

1. Remove electrical power supplied to the unit.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2-15. FILTER SWITCH (Continued)



2. Remove the control panel above the switch.
3. Label and remove the wires from the switch. With test instrument, check across the terminals of the switch with the switch in the ON position, and then in the OFF position. With the switch in the ON position, the circuit should be closed. With the switch in the OFF position, the circuit should be open. If the switch checks defective, replace it by continuing with procedure.
4. With wires removed from the switch, push in on tabs on the switch and remove switch from the panel.
5. Push new switch into panel and reconnect wires.

2-16. GAS CONTROL VALVE ASSEMBLY



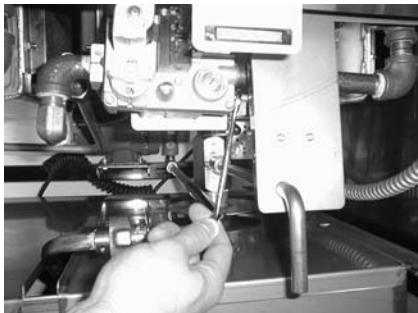
The gas control valve assembly controls the flow of gas to the pilot and the main burner. The valve has two 24 volt coils, which are regulated by terminals P and M on the valve. The C terminal is the common terminal. For gas flow to the pilot, 24 VAC must be present between the P and C terminals. For gas flow to the main burner, 24 VAC must be present between the M and C terminals.



TO AVOID PERSONAL INJURY OR PROPERTY DAMAGE, BEFORE STARTING THIS PROCEDURE, MOVE THE MAIN POWER SWITCH TO THE OFF POSITION. DISCONNECT THE MAIN CIRCUIT BREAKERS AT THE CIRCUIT BREAKER BOX OR UNPLUG SERVICE CORD FROM WALL RECEPTACLE. TURN OFF THE MAIN GAS SUPPLY TO THE FRYER AND DISCONNECT AND CAP THE MAIN SUPPLY LINE TO FRYER, OR POSSIBLE EXPLOSION COULD RESULT.

1. Remove control panel assembly.
2. Remove wires from gas control valve.

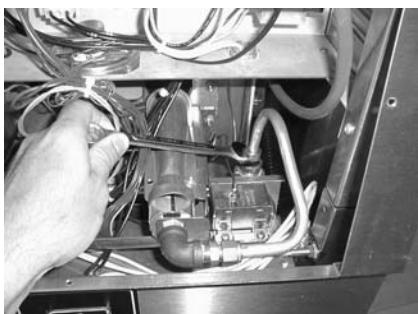
2-16. GAS CONTROL VALVE
ASSEMBLY
(Continued)



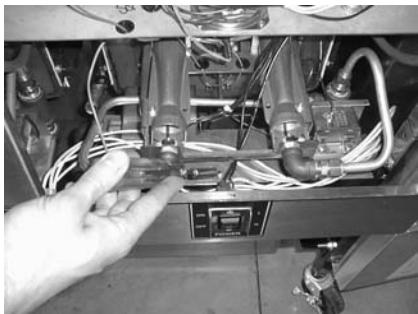
3. Using a 7/16 inch wrench, remove the pilot line from the gas control valve.



4. Using a 1 inch wrench, loosen the nut securing the main gas inlet line to the gas control valve.

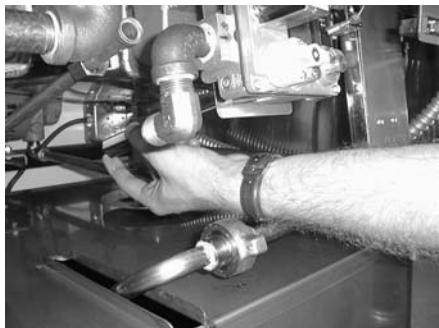


5. Using 5/8 inch wrench, remove the two burner gas line fittings at the black tee fitting, located behind the control panel area.



6. Using a Phillips head screwdriver, remove the three screws securing the gas control valve bracket to the frame of the fryer behind the control panel area.

2-16. GAS CONTROL VALVE ASSEMBLY
(Continued)



7. With the bracket dropped down, remove the two screws behind the bracket securing the gas control valve to the bracket.
8. Install the new gas control valve in reverse order.

2-17. BLOWER MOTOR ASSEMBLY

The blower motor assembly induces the draft for the burners. If the blower motor fails, the air switch will fail to close, causing an “E-20B” error code in the display.

1. Remove electrical power supplied to the unit.



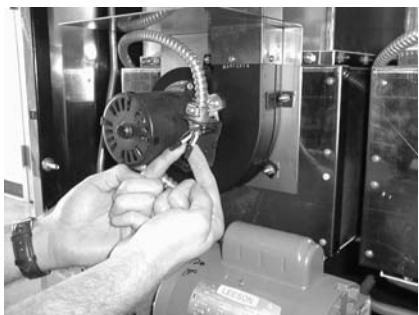
To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove screws securing the two rear covers to the unit.



3. Remove the wire cover from the blower motor housing.

2-17. BLOWER MOTOR
ASSEMBLY
(Continued)



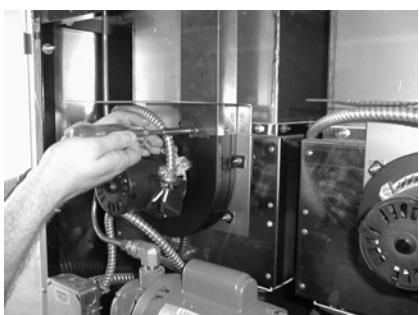
4. Remove wire nuts connecting blower motor wires to wires in conduit.



5. Loosen conduit from blower motor.

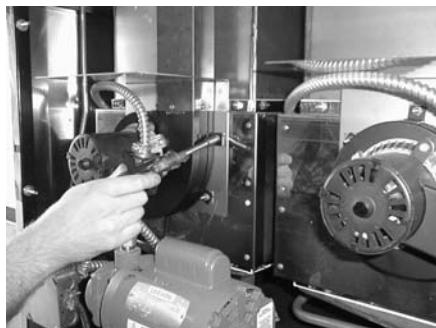


6. Remove screws connecting flue to bracket in upper frame.



7. Remove screws connecting flue to blower.

2-17. BLOWER MOTOR ASSEMBLY
(Continued)



8. Using 3/8 inch nut driver, remove nuts securing blower to the unit. Pull blower from unit.

9. Install new blower in reverse order.

2-18. HEATING ELEMENTS (ELECTRIC ONLY)

NOTICE

Heating elements are available for 208 and 230 volts. Check data plate to determine correct voltage.

Checkout:

If the shortening's temperature recovery is very slow or at a slower rate than required, this may indicate defective heating element(s). An ohmmeter will quickly indicate if the elements are shorted or open.

1. Remove electrical power supplied to the frypot to be worked on.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle, to the frypot to be worked on. Be aware the other controls will have power.

2. Remove control panel.

2-18. HEATING ELEMENTS
(ELECTRIC ONLY)
(Continued)

3. Perform an ohm check on one element at a time, with wires disconnected from element. If the resistance is not within tolerance, replace the element.

Voltage	Wattage	Resistance Ohms (cold)
208	4800	9
230	4800	11

Replacement:

NOTICE

Refer to figure 2-2.

1. Drain the shortening from the frypot.
2. Remove the high limit bulb holder from the heating element inside the frypot.
3. Remove the heating element wires from the terminals by removing the nuts and washers. Label each so it can be replaced on the new element in the same position.
4. Remove the bolts from the five element spreaders. The element spreaders will now pull off the elements.
5. Remove the brass nuts and washers which secure the ends of the elements through the frypot wall.
6. Remove the heating elements from the frypot as a group by lifting the far end and sliding them up and out toward the rear of the frypot.

NOTICE

Always install new rubber O-rings when installing heater elements.

7. Install new heating elements with the new O-rings, terminal end first at approximately a 45° angle, slipping the terminals through the front wall of the frypot.
8. Replace the brass nuts and washers on the element terminals. Tighten the brass nuts to 30 foot lbs. of torque.

**2-18. HEATING ELEMENTS
(ELECTRIC ONLY)
(Continued)**

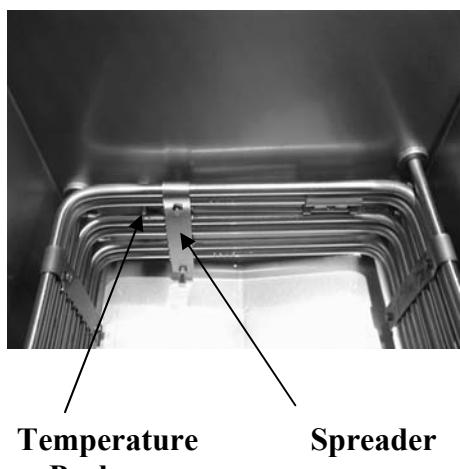


Fig. 2-1

9. Evenly space the element spreaders on the sides of the elements and reinstall bolts. Place the fifth spreader in the front of the elements as to protect the temperature probe. (Fig.6-1)
10. Replace the high limit bulb holder on the top element, and position the bulb between the top and second element midway from side to side, and tighten screw that holds the bulb in place.
11. Reconnect the wires to the appropriate terminal as labeled when they were removed.
12. Replace the front control panel.
13. Connect the power cord to the wall receptacle or close wall circuit breaker.

CAUTION

Heating elements should never be energized without shortening in the frypot, or damage to the elements could result.

14. Replace the shortening in the frypot.

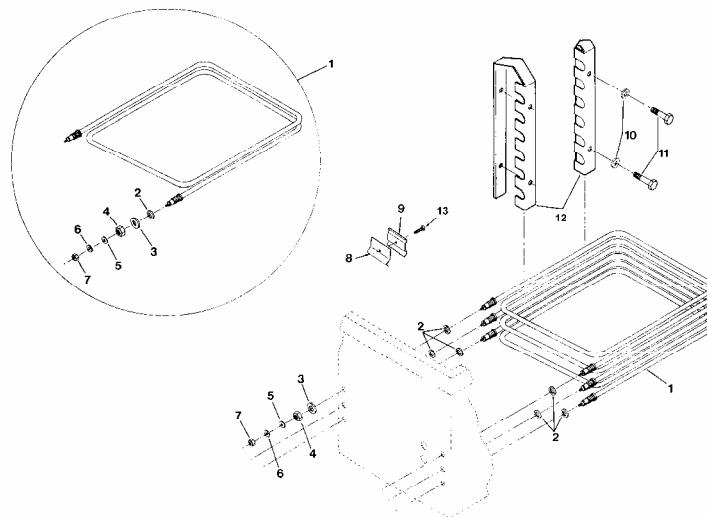


Fig. 2-2

2-19. HEATING CONTACTORS (ELECTRIC ONLY)

Each well of an electric fryer requires two switching contactors. The first in line is the primary contactor and the second in line is the heat contactor. When open, the primary contactor does not allow power to flow to the heat contactor. When closed, the primary supplies voltage to the heat contactor. When the heat contactor is open, no voltage is supplied to the heating elements. When the heat contactor closes, voltage is supplied to the heating elements.

Checkout (Power Removed)

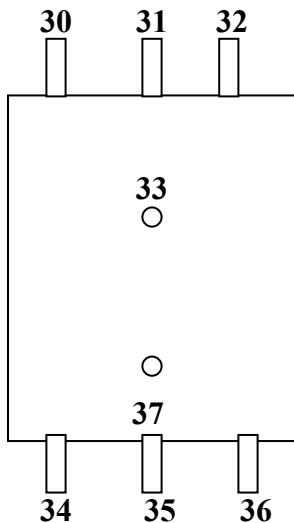
1. Remove electrical power supplied to the frypot to be worked on.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle, to the frypot to be worked on. Be aware the other controls will have power.

2. Remove the control panel.

3. Perform a check on the contactor as follows:



Test Points

- From 30 to 34
- From 31 to 35
- From 32 to 36
- From 33 to 37

Results

- open circuit
- open circuit
- open circuit
- ohm reading 1700



Wires should be removed and labeled to obtain an accurate check of contactors.

Mercury Contactor

**2-19. HEATING
CONTACTORS
(ELECTRIC ONLY)**
(Continued)

Checkout (Power Supplied)



To avoid electrical shock, make connections before applying power, take reading, and remove power before removing meter leads. The following checks are performed with the wall circuit breaker closed and the main power switch in the ON position.

1. Re-apply power to unit and turn POWER switch ON.
2. Using illustrations from previous page, check voltage as follows:

<u>Test Points</u>	<u>Results</u>
From terminal 34 to 35	The voltage should read
From terminal 35 to 36	the same at each terminal
From terminal 34 to 36	

Replacement:

If either contactor is defective it must be replaced as follows:



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle, to the frypot to be worked on. Be aware the other controls will have power.

1. Remove only the wires directly connected to the contactor being replaced. Label the wires for replacement.
2. Loosen the screws securing the contactor bracket to the shroud.
3. Remove the contactor from the bracket.
4. Reinstall in reverse order.



2-20. SPEAKER ASSEMBLY **(Electric Units)**

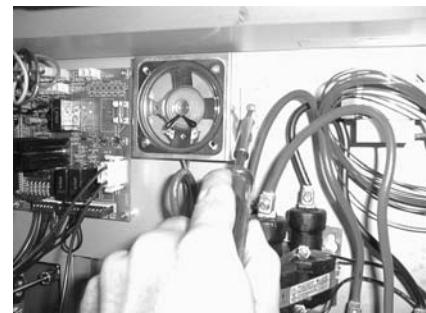
The speaker assembly emits audible signals to let the operator know when cooking and hold times are finished.

1. Remove electrical power supplied to unit.



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove control panel.
3. Follow the speaker wire and disconnect from control board.
4. Remove the screws securing the speaker bracket to the shroud.
5. Remove the speaker from the bracket.
6. Reinstall in reverse order.



2-21. HIGH TEMPERATURE **LIMIT CONTROL** **(Electric Units)**

The electric units, model OFE-321/2/3/4, use the same high temperature control limits as the gas units, OFG-321/2/3/4, but the mounting of the capillary tube is different on the electric units compared to the gas units.

Checkout:

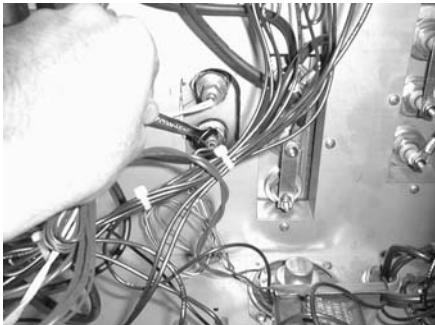
Use the same procedure as in the High Limit Temperature Control (Gas) Section.

Replacement:



To avoid electrical shock or property damage, move the POWER switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle, to the frypot to be worked on. Be aware the other controls will have power.

**2-21. HIGH TEMPERATURE
LIMIT CONTROL
(Electric Units)**
(Continued)



1. Drain the shortening from the frypot.
2. Remove control panel.
3. Loosen small inside screw nut on capillary tube.
4. Remove capillary bulb from bulb holder inside the frypot.
5. Straighten the capillary tube.
6. Remove larger outside nut that threads into pot wall.
7. Remove the two screws that secure the high limit to the high limit bracket.
8. Remove the defective control from the control panel area.
9. Insert new control and replace screws.
10. Uncoil capillary tube, starting at control, and insert through pot fitting.



To avoid electrical shock or other injury, run the capillary line under and away from all electrical power wires and terminals. The tube must NEVER be in such a position where it could accidentally touch the electrical power terminals.

11. Carefully bend the capillary bulb and tube toward bulb holder on heating elements.
12. Slip capillary bulb into bulb holder on heating elements. Pull excess capillary line from pot and tighten nut into frypot wall.

**2-21. HIGH TEMPERATURE
LIMIT CONTROL
(Electric Units)**
(Continued)

CAUTION

Be sure capillary bulb of high limit is located behind capillary bulb of thermostat. Both capillary bulbs and bulb holders should be positioned as not to interfere with basket or when cleaning the frypot wall, or damage to capillary tube could result.

13. With excess capillary line pulled out, tighten smaller nut hand tight, then $\frac{1}{4}$ turn with wrench.
14. Replace front panel.
15. Refill with shortening.

**2-22. AUTOLIFT
ACTUATOR (MOTOR)
REPLACEMENT
(if applicable)**



1. Remove electrical power supplied to unit.

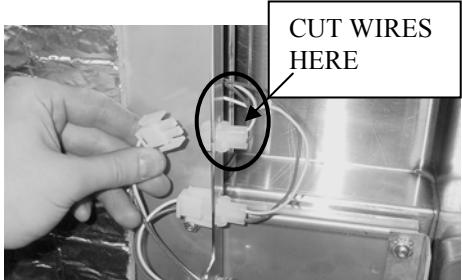


To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Drain shortening from frypot.
3. Remove baskets and using a large, flat-head screwdriver push the clevis pin through basket hanger. Using pliers, pull pin from assembly.
4. Remove rear cover.



2-22. AUTOLIFT
ACTUATOR (MOTOR)
REPLACEMENT
(if applicable) (Continued)



5. Disconnect actuator connector and cut the wires from the other half of the connector, as shown at left. The new actuator wires do not have a connector on them and must be connected directly to the wires on the unit.



6. Using a 3/8 socket, remove the 3 nuts securing the bottom of the actuator bracket.



7. Remove trim strip from front of shroud.

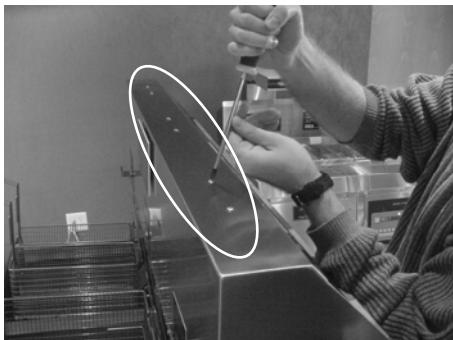


8. Using a 15T torx driver, remove the 4 torx screws from the pair of actuators.

2-22. AUTOLIFT
ACTUATOR (MOTOR)
REPLACEMENT
(if applicable) (Continued)



9. Remove the 2 front mounting screws from the actuator support plate.



10. Remove all the top screws, securing all the actuator support plates to the back shroud, to help loosen the back shroud.



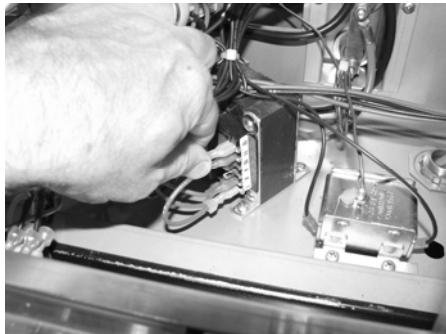
11. Remove all remaining back shroud screws to loosen the back shroud from the unit.



12. Lift up on the entire back shroud assembly, enough to have the top of the actuator and bracket assembly to clear the top of the back shroud. Pull the top of the actuator and bracket assembly away from back shroud, as shown in Figure 10. Now, using a flat-blade screwdriver, push the clevis pin from the bracket and actuator and using pliers to pull the pin from the assembly. Actuator can now be removed from unit.

13. Reassemble in reverse order.

**2-23. AUTOLIFT
TRANSFORMER
REPLACEMENT
(if applicable)**



**2-24. AUTOLIFT PC BOARD
REPLACEMENT
(if applicable)**



1. Remove electrical power supplied to unit.



To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove control panel.
3. Label and remove wires from transformer.
4. Using a Phillips-head screwdriver, remove the screws securing transformer to shroud and remove transformer from shroud.
5. Install new transformer in reverse order.

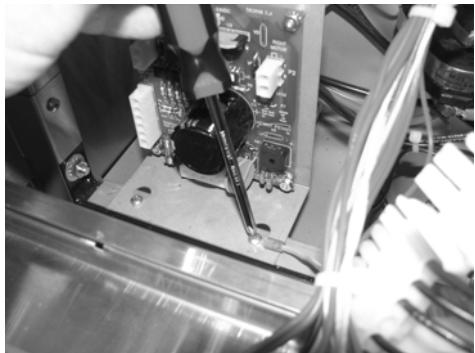
1. Remove electrical power supplied to unit.



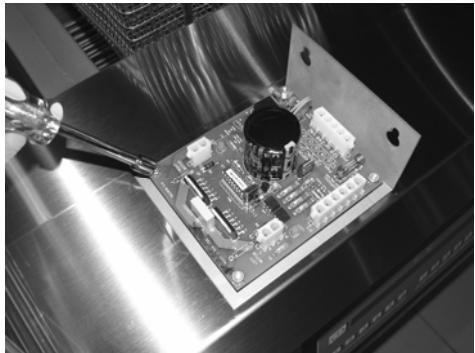
To avoid electrical shock or property damage, move the power switch to OFF and disconnect main circuit breaker, or unplug cord at wall receptacle.

2. Remove control panel
3. Disconnect connectors from PC board.

**2-24. AUTOLIFT PC BOARD
REPLACEMENT
(if applicable) (Continued)**



4. Using a Phillips-head screwdriver, remove the 2 screws securing the autolift PC board bracket to the frame and remove bracket from unit. (The right screw needs removed to disconnect the ground wire, but the left screw can be loosened and the bracket slid forward to be removed through the slots.)



5. Using 5/16" nut-driver or wrench, remove the 4 nuts securing the autolift PC board to the bracket and remove PC board from bracket.

6. Install new panel in reverse order.